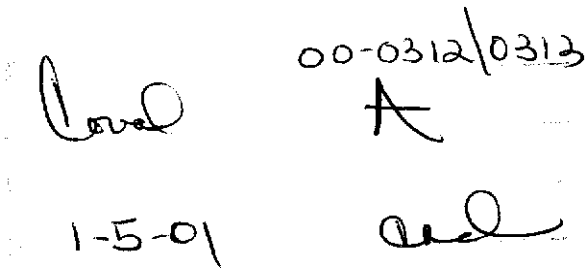
understand Sprint will be providing the testimony in electronic format to the Office of Chief Clerk, correct?

MR. SCHIFMAN: That is correct.

EXAMINER WOODS: Take Mr. Lube at 3:30.

(Whereupon the hearing was in a brief recess.)

EXAMINER WOODS: Back on the record.



J O H N P. L U B E

called as a Witness on behalf of Ameritech Illinois, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BINNIG:

Q. Mr. Lube, could you state your full name

and address for the record, please.

A. My name is John P. Lube, L-U-B-E. My business address is Three Bell Plaza, Dallas, Texas 75202.

Q. And I ask you to first turn your attention to what's been marked for identification as Ameritech Illinois Exhibit 6.0 entitled the "Direct Testimony of John P. Lube on Behalf of Ameritech Illinois." Do you have that?

A. Yes, I do.

Q. And is this your direct testimony in this proceeding?

A. Yes, it is.

Q. Was it prepared by you or under your supervision and direction?

A. Yes, it was.

Q. Do you have any additions or corrections

to make to Ameritech Illinois Exhibit 6.0?

A. Yes, I have two changes or corrections, rather, to make.

The first is on page 7. On line 19 the word "generally" should be deleted.

And then on page 12 there is a question that begins at line 8 that refers to the FCC's review of SBC's proposed ownership arrangement. When this answer was written, the FCC had not yet issued its order in that proceeding. And so what I would like to do is modify this answer as follows. I would like to replace the two words "currently reviewing" with "has reviewed," and where the period is at the end of the sentence now, replace that with a comma. And the rest of the sentence would go on to read "and has authorized such ownership pursuant to its second memorandum opinion and order in CC Docket Number 98-141 issued September 8, 2000." Those are all the corrections to my direct.

Q. With those corrections to Ameritech

Illinois Exhibit 6.0, Mr. Lube, if I were to ask you the questions that appear in that exhibit today, would your answers be the same as reflected in the exhibit?

A. Yes, they would.

Q. Let's turn to Ameritech Illinois Exhibit 6.1 which is entitled the "Rebuttal Testimony of John P. Lube on Behalf of Ameritech Illinois." Is that your rebuttal testimony in this proceeding?

A. Yes, it is.

Q. Was it prepared by you or under your supervision and direction?

A. It was.

Q. And do you have any additions or corrections to this exhibit?

A. Yes, I do.

On page 1, line 13, the words "and Sprint's witness Michael West" should be deleted.

And to make that sentence read correctly, on line 12 there would be an "and" in front of "Rhythm's witness" at the end of that line.

21 The next correction is on page 6. There
22 is a Footnote Number 2 down at the bottom and the

1 cites to the Line-sharing Order were inadvertently
2 omitted. And so after the words "Line-sharing Order"
3 in that footnote it should read "Paragraphs 17, 25,
4 26, and 70; and Footnote 27."
5 On page 26 there are five places that I
6 will point out on this page where I inadvertently have
7 the word "SWBT" in each of these five places that
8 should read "Ameritech Illinois." That's line 2,
9 twice on line 10, once on line 11, and once on line
10 12.
11 And then the last change in my rebuttal
12 would be on page 30. There is a question at line 6,
13 on line 8 of that question toward the end of the line,
14 the word "in," I-N, should be replaced by the word
15 "by," B-Y.

MR. BOWEN: I'm sorry, I lost the page.

THE WITNESS: I'm sorry, on page 30.

MR. BOWEN: This is your rebuttal?

THE WITNESS: Yes, sir, line 8 which is part of the question. So the word "in" becomes the word "by."

And the apostrophe in Mr. Riolo's name

would be deleted and the "S."

And then after his name would be (page 58), and then the question mark at the end of that.

And then line 9 would be deleted.

MS. HIGHTMAN: What did you put after his name?

THE WITNESS: A parenthesis that says page 58 and then the parenthesis close and then a period -- oh, not a period, a question mark.

And then the line 9 is deleted, and those

are all the changes on rebuttal.

MR. BINNIG:

Q. So the end of that question would read "as suggested by Mr. Riolo (page 58);" is that it?

A. Yes, sir, that's correct.

Q. With those corrections, Mr. Lube, if I were to ask you the questions in Ameritech Illinois Exhibit 6.1, would your answers be the same as reflected in that exhibit?

A. Yes, they would.

Q. And is there a schedule attached to Ameritech Illinois Exhibit 6.1, Schedule JPL-1?

A. Yes, there is.

Q. And this was prepared by you or under your supervision?

A. It was prepared by me.

Q. And does this accurately reflect what it purports to reflect?

A. Yes, it does.

Q. Let's turn to what's been marked for identification as Ameritech Illinois Exhibit 6.2. It is the surrebuttal testimony of John P. Lube. Is that your surrebuttal testimony in this proceeding?

A. Yes, it is.

Q. Was it prepared by you or under your supervision or direction?

A. It was.

Q. Do you have any changes or additions to this exhibit?

A. I have just one change. There was a word that was inadvertenty omitted. It's at page 5 on line 25, after the first word on that line which is "before," the word "additional" should be inserted. And those are the only changes to the surrebuttal.

Q. I want to make sure we are not leaving

out any exhibit. Is your only exhibit the Schedule JPL-1 to your rebuttal?

A. No, there was a JPL-2.

Q. And was JPL-2 -- does that accurately reflect what it purports to reflect?

A. It's a memo prepared by Alcatel. In my belief it accurately portrays what it means to. But since Alcatel prepared it --

Q. It's an accurate copy of what Alcatel prepared?

A. Oh, I'm sorry, it is.

Q. With the change to your rebuttal testimony and Exhibit 6.-- or surrebuttal testimony, 6.2, if I were to ask you the questions that appear in that exhibit, would your answers be the same as are reflected in that exhibit?

A. Yes, they would.

MR. BINNIG: We would move for the admission of Exhibit 6.0, Ameritech Exhibit 6.0, 6.1 and 6.2 and the attached Schedules JPL-1 and JPL-2 to Exhibit 6.1, and offer the witness for cross examination.

EXAMINER WOODS: Objections?

MR. HARVEY: No objection.

EXAMINER WOODS: Those exhibits will be admitted upon receipt by electronic transfer, and the witness is submitted for cross.

MR. BOWEN: Thank you.

(Upon receipt, Ameritech Exhibits 6.0, 6.1 with attached Schedules JPL-1 and JPL-2; and 6.2 will be admitted into evidence.)

CROSS EXAMINATION

BY MR. BOWEN:

Q. Good afternoon, Mr. Lube.

A. Good afternoon, Mr. Bowen.

Q. Okay. I think the best way to do this is to just try to step through all three rounds of your testimony, and I will occasionally try to refer to the

same topics in other pieces of testimony, try to do a more integrated job. But, first of all, could you pick up your direct testimony? In looking at page 1, you say that your job right now is to represent

planning, engineering, and operations before federal and state regulatory bodies; is that correct?

A. Yes, that's correct.

Q. Am I correct that that's not a, if I can use the term, a line engineering job?

A. No, it's not a line engineering job. I have held line engineering jobs with SBC, but this job is considered a staff job.

Q. Can you turn to page 3 of your, again, of your direct testimony? On lines 4 and 5 you say that -- well, first of all let me back up. Am I correct that the lion's share of your testimony, of all three of your testimonies, deals with the Project Pronto

issue that is the SBC's new preliminary fiber-fed DLC systems?

A. That is correct.

Q. And do you see your testimony there at 4 and 5 where you say that you assert that your testimony demonstrates the Project Pronto does not adversely affect traditional required line sharing; do you see that?

A. Yes, I do.

Q. You see this elsewhere in your testimony; is this some kind of test that you are suggesting the Commission should apply, that is so long as it doesn't hurt other kinds of services, you should be okay?

A. I suppose what I am trying to accomplish there is, with that statement, is the FCC established line sharing, defined what line sharing is. And the Project Pronto architecture is not the type of network

architecture that the FCC addressed in the Line-sharing Order. That Project Pronto architecture is also a voluntary offering by SBC. Obviously, it did not have to volunteer to build that network. So it's my testimony that that voluntarily deployed architecture and the Broadband Service that uses that architecture do not impair in any way a CLEC's ability to line share in the manner that the FCC defined line-sharing.

Q. Am I correct you are not a lawyer?

A. I am not a lawyer.

Q. You talk a lot about FCC orders in your testimonies; don't you?

A. Yes, sir, I do.

Q. But you don't mean to do that as lawyer, I take it?

A. No, what I mean to do when I refer to

FCC's orders is, in my current job capacity, I have to be able to understand what FCC orders are referring to, what they are requiring my company's network to do, or other matters such as that. So it is necessary for me to understand the technical aspects of the FCC's orders and help my company implement the requirements that the FCC lays out.

Q. Okay. Could you pick up page 4 of your testimony? And we will come back to a couple of areas of questioning repeatedly because you have kind of sprinkled them throughout your testimony. But one of the things that you are saying in your testimony, if I read it correctly, is that you want -- you are suggesting that Project Pronto be available to CLECs as a wholesale Broadband Service and not as a UNE or UNE supplement; is that fair?

A. Yes, sir, that's fair.

Q. Now, you said a moment ago that SBC's deployment of Pronto is a voluntary offering. This is

not a lawyer's opinion; this is based on your own reading of the FCC's orders. Do you understand that the SBC has an obligation to unbundle whatever it deploys, whether it does so voluntarily or not, whether it deploys voluntarily or not? Or do you think the voluntary nature of it somehow excludes SBC from being required to unbundle its network?

A. Well, in my non-lawyer opinion about that, I believe that we are required to unbundle parts of the network that are included on the FCC's list of unbundled network elements.

Q. There is no notion of voluntariness or not in that list, is there?

A. No, the notion of voluntary in your earlier question, though, was how the Pronto deployment affects the ability for a CLEC to line share. And this voluntary architecture that we are deploying, as I said a minute ago, does not affect the CLEC's ability to line share as the FCC defined it.

Q. When you say that, you mean line-sharing on a home run copper, a copper from the premises to the central office; is that right?

A. Well, that and the FCC also spoke to line-sharing on the copper subloop from the remote terminal or nearby the remote terminal location out in the field to the customer's premises.

Q. Just so we are clear on terms, you never want to use line-sharing to apply to a service that rides the fiber portion of your network; isn't that right?

A. Yes, for several reasons.

Q. I know what the FCC orders says. But you never want to use that term to refer to any fiber transport, if you will; isn't that right?

A. Yes, for a very specific reason. And the reason is that line-sharing, as the FCC did define it,

is a new unbundled network element called the HFPL or high frequency portion of the loop. And the HFPL does not exist on the fiber-fed portion of the DLCC.

Q. I assure you we will get to the details. I am just trying to understand as we go through this discussion, when you say traditional line-sharing, you mean line-sharing on copper-only facilities, whether it's a subloop or a whole loop, right?

A. In keeping with the FCC's order, that's exactly what I mean.

Q. Okay, good. Now, on page 4 at lines 9 through 11, when you talk about the components that comprise the Pronto architecture, you say they all work in conjunction to provide an end-to-end Broadband Service; do you see that?

A. Yes, I do.

Q. End-to-end means premises to serving central office; is that right there?

A. Yes, technically it means from the OCD port to the NID.

EXAMINER WOODS: To the --

THE WITNESS: Network Interface Device, the NID at the customer's premises.

MR. BOWEN:

Q. And the OCD that you are talking about, that's SBC's name for an ATM switch, right?

A. It's an ATM switch used for a very specific purpose, yes, Optical Concentration Device.

Q. Meaning not hooked up to the ATM cloud, just stand-alone?

A. Correct, it's not part of a data network. It's --

Q. But it could be. You are using the kinds

of switches that you could hook up to an ATM cloud, right?

A. Yes, sir. That particular box made by that vendor could be a part of somebody's data network.

EXAMINER WOODS: You are saying cloud?

MR. BOWEN: ATM cloud, yes.

EXAMINER WOODS: C-L-O-U-D?

MR. BOWEN: C-L-O-U-D.

Q. Just for the record, Mr. Lube, when I say ATM cloud, do you understand that to mean a packet of switched networks where packets can be routed any one of a number of ways to a destination, not really mattering which path they take on a particular day?

A. Yes, I do understand it that way.

Q. As opposed to a circuit switched network where you have to create actual paths for calls to be transported over?

A. Yes.

Q. So is it fair to say that the ATM cloud or packet of switched clouds is a network of interconnected nodes, if you will, which can transport packets, wherever they come from, wherever they go to?

A. Yes.

Q. All right. Now, am I right that the ATM switch that SBC has chosen for many of its states is the Lucent CBX500?

A. That's correct.

Q. That's not the case for Ameritech, though, is it?

A. My understanding is that the choice is not the CBX500.

Q. It's the CISCO router, right?

A. That's my understanding.

Q. Do you know the model number?

A. I believe it's a 6000 series.

Q. A 63 something something, does that sound correct?

A. I am really not sure. As a matter of fact, we have not actually approved that

manufacturer's product for use in the corporation yet.

So I think it's still undergoing testing. And so I am not exactly sure what the specific model number is, Mr. Bowen.

Q. But you know it's a CISCO and not a Lucent ATM switch?

A. As I mentioned a minute ago, yes, I do.

Q. Well, if somebody were to study the Project Pronto network from a cost perspective and were to look at the costs of a Lucent CBX500, instead of a CISCO router, those costs wouldn't necessarily be correct as applied to Ameritech's plan; would they?

A. Well, I'm not sure what the cost differences are. If there were significant cost differences, I would assume it would be appropriate -- you know, my personal opinion would be that it would

be appropriate to use the equipment in the cost for Illinois that would actually be deployed in Illinois.

Q. In other words, if you want to figure out the cost of Pronto components in Illinois and you wanted to look at the OCD piece of that, you want to look at that CISCO router, right?

A. And that's assuming that it achieves the

status of approved for use within SBC, which I suspect it probably will but --

Q. Well, Ameritech doesn't plan to use the Lucent router unless the CISCO fails certification, right?

A. That would be my assumption.

Q. Okay. Coming back to page 4 of your testimony, would it be okay with you if we thought about -- I want you to put aside line-sharing for a moment because there are some very complicated policy

overlays the way you define it. I don't want to quibble with you about that. I want you to just think technically the way the actual bytes or whatever travel from the premises to the central office.

Would it be fair to say that you could conceive of an end-to-end broadband UNE going from the premises to the central office, again not getting specific here, riding in part the Project Pronto architecture?

MR. BINNIG: Again, we are not asking for any legal conclusions here?

MR. BOWEN: Right. It's a technical

question.

MR. BINNIG: Well, UNE is a legal term. That's my only --

A. Well, for the technical reasons that I

have described in both my direct and rebuttal testimony, I would not agree that an unbundled network element, as we generally know of unbundled network elements, could be provided in that network architecture. And, again, the reasons that I cite in my testimony are that this broadband UNE, I think, as I believe Mr. Bowen characterized it as that, the industry services that traverse through that network architecture do not travel through there in a consistent piece of bandwidth or a piece of the bit stream. There is totally different interface characteristics at both end. At one end it's a copper pair and at the other end it's a very high speed port off of an OCD that happens to contain end user signals from many, many, many different end users.

So it's not an end-to-end consistent path or, I'm sorry, rather integral path or interconnection. So for those technical reasons I do

not believe it should be an unbundled network element.

Q. All right. If I wanted to buy a regular old voice-grade UNE loop from you and have it go over this architecture, I could get there, right?

A. As an unbundled ADB loop?

Q. Yes.

A. Through the POTS side of the system?

Q. Yes.

A. Yes, sir, that's correct.

Q. And if I wanted to buy a stand-alone ADSL loop from the central office to the premises, I could get that over this architecture, too, right?

A. You could get that as the end-to-end Broadband Service.

Q. Why couldn't I get that as a UNE? I didn't want line-sharing. I just wanted to do ADSL from the premises to the central office.

A. As I tried to explain just a minute ago, even for pure data, just the DSL, at the end user's premises it's a two-wire metallic interface. At the central office it's a very high speed OCD port that

22 containes, not only that end user, but potentially

1 hundreds of other DSL end users. So it is not a
2 consistent end-to-end type of architecture, unlike the
3 UNE-P loop, which what you have at the end user, both
4 physically and electrically, is the same thing that's
5 delivered to the CLEC in the central office. It's
6 two-wire --
7 Q. So what? What difference does that make?
8 A. Well, from a network perspective, if we
9 say that a UNE is a dedicated part of the network
10 that's used by one CLEC, then I guess I can't see this
11 being the case going through the Project Pronto
12 architecture.
13 Q. What if I want to get an IDSL-capable
14 loop from over the Pronto architecture? As a UNE can
15 I get that?
16 A. My understanding is that IDSL, which is

just a non-switched version of ISDN, can be provided over the POTS side of the architecture and that that could be obtained as an unbundled element because, again, at both ends it's a two-wire metallic connection, same speed in, same speed out. That's why -- I'm sorry, that's why in my testimony I refer

to the fact that the data part of the Project Pronto architecture deals with most varieties of DSL. But IDSL is an exception to that.

Q. Well, you have heard the term "time division multiplexing;" have you not?

A. Yes, sir.

Q. Or TDM?

A. Correct.

Q. That's how, prior to this most recent Project Pronto upgrade to the Alcatel DLC system, that's how all services were carried across the fiber between the RT and the central office; is that

correct? TDM.

A. That's correct.

Q. And isn't it correct that time division multiplexing creates a variety of dedicated channels, if you will, in some multiple 64K bandwidth?

A. Yes. In the digital hierarchy the TDM uses, there are specific bandwidths that are available depending on the type of electronics you put at both ends of the fiber. And although you may not be able to get a 64 kilobyte, what you can get is usually in

multiples of that.

Q. Well, you seem to place a lot of importance on the fact that under some kind of configurations the interfaces are the same at both ends. So I take it that you would find ISDN or IDSL to be okay because at the central office end that's handed off on a copper basis; is that correct?

A. Yes, sir. But besides that, ISDN, for

example, is available over non-Project Pronto DLCs that have been in plant for years.

Q. We don't care about that right now, though.

A. But the point being that the TDM that's used to transport ISDN signals, it again derives at the central office in the same type of signal that you started out with at the customer end. So in my description of what I think a transport-type UNE should be, it's an end-to-end consistent path and same characteristics at both ends that can be provided, that can be provided as an unbundled network element.

Q. Okay, but using an ISDN as an example, an ISDN loop which I am going to use for IDSL over a

fiber-fed DLC architecture, Pronto or not, those are both possible, is that correct? Pronto or not?

A. That was my point a minute ago, yes, sir.

Q. If either one of those goes on fiber, there is not a dedicated physical path between the central office and the premises; is there?

A. There is a specific place for each of those ISDN services within that bit stream, unlike ATM.

Q. Do you understand my question, Mr. Lube? Is there a dedicated physical path end-to-end between the central office and the premises for that ISDN service?

A. No, it's multiplexed on a higher bandwidth signal but in a fixed amount of bandwidth in a fixed location in the bit stream.

Q. Wait a minute. You mean that the signal somehow transforms from riding a signal facility to one that rolls together with all other signals and goes onto a fiber?

A. That's called multiplexing.

Q. But that's okay, right? That doesn't

somehow wreck the UNE nature of that one?

A. Because it has a consistent -- has a consistent bandwidth and bit stream described path through that architecture that you are describing, and it has the same signal at both ends of that path. The same type of signal is handed off to the CLEC at both ends.

Q. What do you mean by the same type of signal?

A. Electrical two-wire, just as a for instance, like an ADB loop, you know, it's a two-wire electrical signal at the customer's premises. It's a two-wire electrical signal at the collocation where it is delivered in the central office.

Q. Well, you are not handing off a signal, are you? You are handing off a facility. When you give me a copper loop, it hasn't got anything to do with the signal; that's my job, isn't it? You are handing me a copper pair?

A. I am handing you a copper pair with

specific interfaces at both ends.

Q. You don't do any signaling to me, do you?

A. That's not what I meant.

Q. What did you mean when you said common signaling format then?

A. I guess what I said was, it was a consistent type of signal at each end. In other words, meaning just the two-wire analog at one end and the two-wire analog at the other end. Now, what signal you put over that, of course, is your business.

Q. All right. Now, let's look at the next Q and A on page 4. You ask yourself or somebody asks you, can you break up the Pronto architecture to what you call a piece part basis; your answer is no; do you see that?

A. Yes, sir, that's correct.

Q. You are familiar with the term UNE

platform or UNE-P; are you not?

A. Yes, I am.

Q. Do you understand that to mean taking an existing, say, local exchange service, regular dial tone service, not breaking it apart and re-combining it into a UNE loop local switching and local transport but leaving those separate, essentially separate UNEs

in place and calling it a UNE platform and pricing it at UNE rates?

A. Yes, that's what I understand it to be.

Q. And AT&T or MCI wants to buy something like that, isn't that right?

A. They might.

Q. Let's try to apply that concept of not breaking apart the pieces to just the loop for a moment, okay. Let's think about using that concept to say, okay, I understand that there are different

pieces of fiber-fed loop, that there is a copper piece and there is some DLC equipment and there is a fiber piece and the central office hand off over here, either an OCD or central office terminal for TDM. But I don't really care about all those different pieces. All I want is a connection from here to there, and I want you to -- I want to buy it as pieces and combine it as a platform. Can we have that?

A. I guess it's our position that we only offer those pieces that you just described as an end-to-end service. That's the product offering that we have put together and made available to the CLECs.

We are not offering the piece parts.

Q. What if I don't want to buy it as a service; I want to buy it as a UNE. There is no technical difference, right? Again, you are the

engineer-type person here. There is no technical difference, right?

A. Yes, there is in my mind, the technical difference that I have been describing already about the path through the architecture and the interface specifications that the two ends of this thing that you want to call a UNE --

Q. I'm sorry. It was a bad question. I want you to contrast the wholesale Broadband Service with my notion of a UNE platform on the loop itself. That is, I want you to have all the pieces that we talked about, that you talked about in your testimony, that is a distribution cable from the premises to the RT, the use of the NGDLC equipment in the RT, the use of the fiber coming back to the office, and the hand off in the OCD port, that's what you are offering as the Broadband Service, right?

A. That's correct.

Q. If I want to buy the same pieces, if you will, as a collection of unbroken apart UNEs, technically there is no difference, right?

A. Well, yes, there is a very huge difference, actually. In the case of UNE-P where you have a loop, an unbundled loop, and then you also have an unbundled switch port, those can be used individually, one without the other. I mean, if for example a CLEC had its own local switch, that CLEC could obtain from Ameritech an unbundled loop and connect that to its switch. So the fact is in the UNE-P, those are two piece parts that can be used individually, stand-alone. They happen to be obtained under the UNE platform offer as pre-combined simply because they are already working that way today for that end user for POTS.

It's different with the end-to-end Broadband Service. The pieces of the Broadband Service -- and I am talking the DSL side of the architecture, not the regular POTS side of the architecture -- but those piece parts cannot be used independently. They have to work together in a highly

integrated manner, and it would make no sense for a CLEC to say I would like to buy a UNE piece over here that is going to have to be hooked up to a UNE piece over here that just happens to have to be hooked up to another UNE piece over here. They have to work together in this integrated fashion.

So there would be no reason to have them broken into parts, whereas with UNE-P, like I said, there would be a reason to have those broken into parts because they could be used individually.

Q. Okay. I want you to take yourself back to when you were a line engineer and you didn't know about all this FCC stuff and you didn't know about UNEs and you didn't know about all the regulatory overlaps. All you knew was the engineering part of the network. Can you take yourself back with me to that point? You are just a regular engineer now for a

moment.

A. Our regular engineers today understand what UNEs are. Unfortunately, we are all having to live in a UNE world today.

Q. So you can't take yourself back to line

engineering.

A. Well, if I really did what you asked, I would still understand or I would do my level best to understand what UNEs are, what our obligations are as a network organization to provide those UNEs. Again, that's pretty much a lot of what my job is.

Q. I don't want to talk about you. I want to talk about how you are actually going to put up pieces of the network as an engineer, as a line engineer. Can we do that?

A. I will try to do that.

Q. I want you to assume putting up pieces of

a network, call it Project Pronto, to support the wholesale Broadband Service. You have that in mind because you testified to it, right?

A. Yes.

Q. Now, I want you to have in mind what you would put up to do what I might call a loop end platform. Nevermind that you can or can't use the pieces separately or not. If I wanted to do a loop UNE platform, wouldn't it be the same architecture?

A. Just to make sure I answer you correctly,

you want me to answer this as though I don't know about UNEs but you call it a UNE loop platform.

Q. Right. All I am asking you to assume is that a service versus a UNE platform are regulatory constructions that have nothing to do with the actual engineering of how you provision these facilities.

A. I think I know where I was becoming disconnected a second ago. You said a UNE loop

platform. Do you mean a UNE platform type of loop?

Q. Yeah.

A. Because there is a difference.

Q. Sorry about that.

MR. BINNIG: I will object to the vagueness of the question.

EXAMINER WOODS: I think he just said he finally understood it.

MR. BINNIG: I'm not sure he does, though. I want to make sure. Mr. Bowen's reference to the loop UNE platform is what he was talking about conceptually of envisioning the UNE platform concept applied to a loop.

MR. BOWEN: Yeah. Not a trick question.

MR. BINNIG: I didn't say it was.

A. The way that I would answer you is, if I were trying to build a POTS service, which I think is

equivalent to what you are calling the UNE platform --

Q. No, I'm not talking about POTS, Mr. Lube. I am talking about DSL service. We are all talking about DSL service.

A. Well, you asked about UNE platform, Mr. Bowen, and that's not DSL. That's POTS.

Q. As I told you this morning, I am a very patient man, Mr. Lube. I want you to stick to DSL and I want you to engineer with me a Pronto-like project to support what somebody wants to call a service, what somebody else wants to call a UNE platform loop, as we talked about, both carrying DSL services, okay?

A. I understand that you now -- I did not understand a minute ago. I understand you now literally do mean a UNE loop platform, not a UNE platform loop, and there is a difference. There is a huge difference there.

If you are wanting me as an engineer, a line engineer, to build a platform that provides

loops, and you choose to call it a UNE platform, which I am not supposed to know anything about but I do, what that would consist of as the carrier that has the underlying network that provides that UNE loop to you, I could build that lots of different ways. I could build that as copper all the way. I could build it as central -- digital loop carrier between the central office and a remote terminal, and copper the last mile or so to the end user's premises.

Each of those two different things I just described or arrangements I just described, would provide a loop platform to you. And it happens to be an unbundled loop that you can get from me for that today.

Q. So what one of those options would look and feel like Pronto, right?

A. No, sir, not the DSL side of Pronto.

Q. And that would be because?

A. Well, let me try it this way. Pronto is an --

Q. You are an engineer still, right. You are not a regulatory guy.

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A. Pronto from an engineering perspective -- Pronto is different from what's out there in the loop plant today because it indeed has a voice path from the RT back to the central office that is distinct from the DSL path from the RT back to the central office. What I described a minute ago for an unbundled loop would be descriptive of the voice side of the Project Pronto platform.

What's different about the DSL side of that platform is that you have, from the RT equipment back to the central office, you have an ATM multiplex -- and this is from an engineering point of view -- you have an ATM multiplex signal that comes in from

the remote terminal site and from the electronic equipment from the terminal office and into the central office and into an optical concentration device which is an ATM switch which routes and aggregates individual end user's DSL services to the specific CLEC that serves those particular end users.

And that does not look at all like what would be a loop. The OCD and the fiber interconnection at the central office is an integrated

equipment relationship that does not exist for a standard unbundled loop that is used for all the other kind of services that aren't DSL that you would like to offer.

Q. Let's be specific. You are talking here about a DSL which as of this time is the only ATM encapsulated technology, right? If I could use the term packetized technology, right?

A. It's not the only one, but if you mean the only one that the platform accommodates today, that's correct.

Q. Yes. And other DSLs like SDSL or HDSL or IDSL are not ATM cell or packetized, right?

A. At this point in time, that's correct.

Q. They use some multiple of 64K channels, right?

A. On this platform SDSL, for example, cannot be handled at all right now.

Q. I mean just generally right now other DSLs are not ATM packetized technologies, right?

A. I'm sorry, could you please repeat the question?

Q. Take your current network in Illinois, pre-Pronto. There is a lot of different kinds of DSLs out there, including HDSL which you use yourselves,

IDSL and SDSL, right?

MR. BINNIG: Well, I will object to the question as being compound.

MR. BOWEN: Okay. I will ask the questions one at a time, Your Honor.

MR. BINNIG: It doesn't have to be one at a time. But you said which you used yourselves, and that was a separate question from the question about the type of services.

MR. BOWEN:

Q. Mr. Lube, are there IDSL services deployed on your loop network deployed in Illinois right now by CLECs?

A. I assume that there are. I have not personally checked but I would assume that there are.

Q. Doesn't Ameritech Illinois use HDSL technologies to deploy T1s right now?

A. It uses a TDM version of HDSL, four-wire type of architecture, to provide DS1s; that's correct.

Q. And don't CLECs in Illinois deploy SDSL on unbundled loops in Illinois?

A. Copper loops?

Q. Yes.

A. Yes, sir.

Q. Aren't all three of those DSL technologies not packetized as they go across the copper?

A. I understand what you mean now. As they go across the copper, that is correct, they are not packetized.

Q. But ADSL, am I correct, is packetized. ATM cells are the technology that are used to support ADSL service?

A. Not across the copper part of the network. That is incorrect. ADSL across copper is actually a digitized analog signal that rides over two copper wires.

Q. Let me be more precise. Isn't it true that from RT on the fiber back to the central office the ADSL signal is carried on ATM cells or packets?

A. Yes, sir.

Q. I take it that there is something about that that makes it somehow different in your mind. Once you turn a signal from a fixed bandwidth into packets, that magically becomes something completely different and, therefore, is no longer a UNE; is that right?

A. Well, whether or not it's a UNE relies upon some FCC rules and impair analyses that were done along with the FCC's UNE Remand Order. The difference that I see as an engineer is that there is a difference in the way that the piece parts of that architecture have to interwork with each other, on a one-to-one correspondence basis, to provide that service, that ADSL service, to a CLEC so that the CLEC can in turn provide it to its end user.

Q. But from an engineering standpoint there

is nothing magic about transforming analog digital signals into ATM packets, is there? It's done all the time?

A. Yes, sir, it's done all the time.

Q. Isn't SBC doing that itself for its interoffice network on the VTOA Initiative?

A. I don't know that we are actually doing that live on our network today. I know that we are looking at doing that, yes, sir.

Q. Isn't that what Mr. Keown has testified to under oath?

A. I just agreed with you. Yes, sir, we are looking at doing that. That's part of Project Pronto, in fact.

Q. All right. Does it -- from an engineering standpoint, I take it you will agree, it doesn't really matter as long as all the bytes and

packets and cells arrive in the right location, how they got from one end to another? It doesn't matter the path they travel or the technology they travel on; is that right?

A. Well, we believe it does matter with respect to whether or not it's a UNE.

Q. I am talking about I want you to still be an engineer for awhile. It doesn't matter from an engineering standpoint how you get from Point A to Point B as long as all the cells in the packets arrive correctly, right?

A. So long as we have all the correct piece parts, the interrelated and interworking piece parts, that are necessary for that to happen, yes, once it gets there, that's great.

Q. Okay. All right. Let's talk about the

wholesale Broadband Service versus UNE in terms of what that might give Rhythms, okay? Now you can be regulatory guy for awhile.

A. Okay.

EXAMINER WOODS: Yeah, something I understand.

MR. BOWEN:

Q. All right. Now, you mean the term service in the regulatory sense, do you not? That is, this is to be distinguished from a UNE?

A. Yes. I will point out that the wholesale marketing aspect of this being a service is something that Ms. Chapman can speak to since that is her area of expertise. But, yes, in my engineering mind's eye, yes, that's a regulatory distinction between a service and a UNE.

Q. Okay. Am I correct you that also talk

about this, I think, in your rebuttal testimony at 5 and 14 as well. So just keep in mind, you know, page 5 of your direct plus those two because you say several things at several times about this. I know you recall everything you said, so. Isn't it correct that a service, that is as distinguished from a UNE, the offering of that service is controlled by Ameritech?

A. That part of it is more of a wholesale marketing question that Ms. Chapman would have to address.

Q. I'm sure that's true. But is that your understanding as a regulatory engineering-type person?

A. Well, I understand that regulated companies provide services all the time, and I don't know that I would say that they are completely within the control of the company. I guess there is other regulated services or services that regulated carriers provide that are --

Q. For example, Rhythms can't make you offer me a service, right?

A. I suppose that would be correct. But

that's probably a little bit beyond my network responsibilities.

Q. Am I correct that services, as you understand it, are not subject to the Telecommunications Act obligation the way UNEs are?

A. That's my understanding.

Q. For example, is it correct that we have a right to get UNEs under the Act; but we don't have a right to get services?

A. I can't speak to that.

Q. You said you know all about the UNE orders.

MR. BINNIG: If I may object, I will object, not to the legal conclusion which is what it calls for but I think it's vague because there are provisions in the Telecommunications Act that directly address retail services. So we need to be a little bit more

precise here.

MR. BOWEN:

Q. I will ask a different question. That was a pretty rotten question. Am I correct that services are not required to be priced at or on the

basis of TELRIC?

A. That's correct, although SBC has committed to pricing its Broadband Service using TELRIC.

Q. But UNEs are required to price on the basis of TELRIC, right?

A. That's my understanding.

Q. Am I correct that a service can be withdrawn by Ameritech?

A. I don't get into that aspect of providing services to customers.

Q. You don't know whether or not Ameritech

can withdraw services or not?

A. Based upon my own personal experience, I guess I know of services that had to have regulatory approval to be withdrawn, but I can't speak to that in this instance.

Q. Would that be a Ms. Chapman question?

A. I believe it would.

Q. Do you know whether or not Ameritech can modify services unilaterally?

A. I don't know that we can. I mean, if

your question is referring to services in general, there is lots of services out there, and I suspect that customers would object if we unilaterally modified how some of those services operate.

Q. Well, doesn't Ameritech unilaterally modify services all the time through tariff change filings?

A. Well, in the instance you are talking

about with tariff change filings, those are subject to suspension unless there is no objection to the changes.

Q. But you don't normally negotiate your tariff changes; is that right?

A. I don't know. I don't work in the tariff organization.

Q. Is that a Ms. Chapman question also?

A. I think it would be.

Q. Now, you have seen, I take it, since you worked on the regulatory side of the network, you have seen the Accessible Letter or letters that SBC has issued concerning this so-called wholesale Broadband Service; is that right?

A. Yes, sir, I have.

Q. Isn't there more than one configuration

that's described in the Accessible Letter?

A. Yes, sir, there is.

Q. There is a stand-alone DSL configuration, right?

A. I am sorry. I didn't hear your question.

MR. BOWEN: Could you re-read the question, please, Ms. Reporter?

(Whereupon the requested portion was then read back by the Reporter.)

A. Yes, there is.

Q. And isn't there something called a line-shared configuration?

A. It used to be called a line-shared configuration back when the Accessible Letter was issued in May, I believe May 24. That configuration of the Broadband Service was actually renamed in the September Accessible Letter. It's called "Data with Line-shared Subloop" and that was renamed in order to try to eliminate some of the confusion that I think

was generated when it was initially called the Line-shared Service Arrangement. And the point being that the line-sharing that occurs on that service arrangement only happens on the copper subloop portion or component of that service.

Q. When you say there was an earlier version, Mr. Lube, I take it that was the version that we marked as an exhibit in the arbitration, that Accessible Letter?

A. I have no idea.

Q. Let me show you what I think is, that I recall, some earlier version. I have handed the witness a copy of an SBC Ameritech Accessible Letter dated May 24, 2000, Number CLEC AM 00-044. Do you have that?

A. Yes.

Q. Is this the earlier version that you are referring to that might have the nomenclature line-sharing included in it?

A. Yes, I believe that within this document

it refers to the line-shared service arrangement. I believe I am using the right terminology they use in

this letter.

MR. BOWEN: Just for the record, Your Honor, I would note that this was marked and admitted as Covad Schlackman Cross Exhibit Number 1 in the arbitration. Can I just ask you to take notice of that or incorporate it by reference in this docket or shall I remark it?

EXAMINER WOODS: Better re-mark it.

MR. BOWEN: We are going to have to get copies. Can I reserve a number?

MS. HIGHTMAN: It will be Rhythms Cross Lube Exhibit 1.

MR. BOWEN:

Q. Okay. Mr. Lube, what I want to do now is point your attention to an attachment to that. It is